

# Poisonous Snakes of Australia, New Guinea & The Pacific Islands

Prepared by Arctic, Desert and Tropic Branch

Army Air Forces Tactical Center

INFORMATIONAL BULLETIN No. 24

Private Library

of

John D. Kilby

## SOME FACTS ABOUT POISONOUS SNAKES

Almost everyone is afraid of snakes. Even the harmless kinds are regarded with loathing and often with terror. Fear of snakes is caused partly by our unfamiliarity with them but mostly as the result of a lot of nonsensical fiction and misinformation.

No one expects you to love snakes. It is a good idea to leave them alone. But there is no need for you to fear snakes once you know something about them, their habits, how to identify the dangerous kinds, the simple precautions to take to prevent snakebite and the first aid measures to use in the very rare emergency of being bitten.

Actually, the chances of being bitten by a poisonous snake are very small. For example, deaths from lightning in the United States amount to almost three times the deaths caused by snakebite. In Australia, where there are many kinds of poisonous snakes, the death rate from snakebite averages only 12 persons per year out of a population of 6,500,000. The danger of death from snakebite is considerably less than the possibility of being killed in a jeep wreck or getting shot by accident.

You can dismiss as exaggerations most of the popular literature you've read and the stories you've heard about snakes. Don't believe all the hair-raising tales about the number, size and ferocity of the local snakes in the area where you are based. Natives know all the poisonous kinds but, in addition, they will tell you that many harmless species are deadly. For example, in the United States, the common little puff adder is considered almost universally to be dangerous. This is nonsense; the puff adder is non-poisonous and will hardly ever bite.

Statistics on the number of people bitten by poisonous snakes are unreliable. This is especially true in the wilder areas where dangerous snakes are most numerous. Furthermore, the fatalities are almost always among people who go about barefoot and get bitten on the feet or ankles. For a soldier wearing shoes and leggings, living in a camp where any snake that is seen is promptly killed, the danger of being bitten by a poisonous snake is small compared to the hazards of malaria, cholera, dysentery or other diseases. Mosquitoes are a thousand times more dangerous than snakes.

Soldiers living in camps and barracks, even where snakes are relatively plentiful, may seldom see one. Men working or fighting in the jungle may see them occasionally. Those engaged in clearing ground, cutting grass or jungle, or digging up soil may see a good many snakes, but the chances of getting bitten by a poisonous kind are very small.

There are many reasons why snakes are a minor hazard. First of all, most snakes are harmless. Then, too, snakes are not numerous. Because all snakes feed on other animals, such as rats, rabbits or birds, each snake must have a fairly large area for his hunting ground in order to find enough food. This limits the number of snakes. Furthermore, the danger from most of the few poisonous kinds of snakes is much overrated. It depends mainly on the size

of the snake. Usually, only a large specimen, over two feet long, is really dangerous to a grown man, and these large extremely dangerous snakes are not common. The bite of the smaller snakes is not likely to be fatal.

In addition, nearly all snakes avoid man if possible. It is reported that the king cobra of Southeast Asia, the bushmaster and the tropical rattlesnake of South America, and the mamba of Africa sometimes aggressively attack man, but even these snakes do so only occasionally. Most snakes get out of the way (some of them do it slowly) and seldom are seen.

The distance at which a snake may bite has often been exaggerated. This striking distance seldom is more than half the snake's length; in the large snakes, about a third of the length, and in some snakes, even less. However, some of the small vipers have been known to strike their full length. The distance a cobra can strike is easy to judge since the part raised is never bent into deceptive S-curves but merely is jabbed forward and downward; commonly the distance is almost one foot; in a 12-foot king cobra the striking distance may be as much as 3 feet. Generally, you must be at least within a long step of even a large snake before he can bite you; a normally alert person will be able to see the snake before he gets within striking range. Most bites occur when a snake is stepped on by accident.

All these facts do not mean that no soldier is going to be bitten or that poisonous snakes are harmless creatures which will make fine pets. It is stupid and highly dangerous for an inexperienced person to pick up a snake unless he is positive the snake is harmless.

No man need fear snakes who knows these facts about them. You can minimize the possibility of being bitten by keeping your eyes open, by keeping your hands off *all* snakes, by learning how to identify the dangerous kinds in your own local area, by following the simple precautions for avoiding snakes, and by knowing what to do in the very rare event you are bitten.

### **Identification of Kinds of Poisonous Snakes**

It is not easy to identify a poisonous snake. There is *no single* characteristic which distinguishes a poisonous snake from a harmless one except the presence of poison fangs and glands. You can determine the presence of these parts without danger only in dead specimens, and even then the fangs may be hard to find.

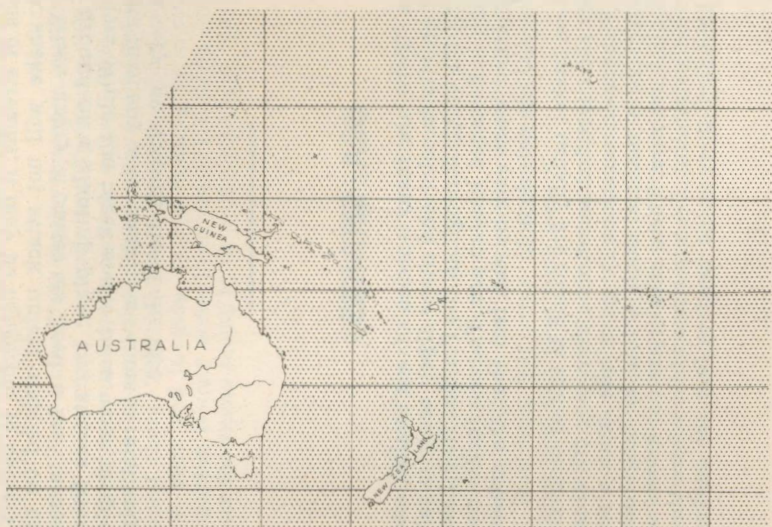
*The notion that all poisonous snakes have lance-shaped or triangular heads or some other warning feature is wrong and dangerous.* While it is true that many dangerous snakes do have a lance-shaped head, many do not.

The only sure way to identify dangerous snakes is to learn to know and recognize the poisonous kinds on sight in the particular area in which you happen to be based. The inside of this bulletin illustrates and describes the important kinds found in your area. In any given locality you are not likely to see more than one or two kinds and you can learn to identify them further by studying dead specimens. The ability to distinguish a poisonous snake from a harmless one will minimize the danger of snakebite and help to eliminate fear.

### **About Pythons**

Although they are not poisonous, it is worth knowing some facts about pythons, boas and other constrictors. Some of these are large snakes which may grow to 25 feet in length. In spite of the many hair-raising tales concerning these reptiles, they are timid and rarely, if ever, attack man. Boas are found in the American tropics; pythons occur in the tropics of Africa and Asia. They sometimes attack small children but will not deliberately tackle anything that is too big to swallow. A man is too big for even the largest python. If caught or cornered, these snakes may fight back by wrapping their coils around the attacker. If left alone, they are about as dangerous as a collie dog.

# DISTRIBUTION OF POISONOUS SNAKES OF AUSTRALIA, NEW GUINEA AND THE PACIFIC ISLANDS



**Australia, New Guinea, New Hebrides, The Carolines, The Solomons and Adjacent Islands:** Nearly all the snakes in this area are poisonous. The most dangerous snakes are the tiger snake, the brown snake, the black snake, the copperhead, the death adder and the taipan. Of these, only the death adder and brown snake occur in New Guinea.

**Islands East of New Zealand, New Hebrides and The Carolines:** There are no poisonous land snakes. The sea snake is the only poisonous snake in this area. In Australia, several snakes have names which are the same or similar to those of snakes in the United States. However, they are not the same snakes and do not resemble the U. S. snakes of the same names.

---

## Precautions Against Snakebite

*Always wear shoes and leggings or high boots in areas where snakes are common—most snakebites occur below the knee.*

*Don't walk around barefoot, especially at night.*

*Don't poke your hands into holes in the ground. Wear gloves and take special care when clearing ground or brush. Watch where you put your hands in rocky places or on stone walls. Look before you touch—many snakebites occur on the hands.*

*Don't handle a live snake or play with it unless you are absolutely certain the snake is harmless. It takes an expert to handle a dangerous snake. You flirt with death when you pick up an unknown snake.*

*Keep your eyes open—develop "snake sense". You must be within a long step of even the largest snake before it can bite you. Alertness pays off in safety.*



## FIRST AID FOR SNAKEBITE

The first problem in treating snakebite is to determine whether it has been caused by a poisonous snake. Many harmless snakes will bite in self-defense. The only reliable way to tell whether the snakebite is poisonous is to identify the snake. However, the wound itself may give some clues.

One good indication of the bite of a poisonous snake is the intense pain which results almost immediately. A severe bite from a harmless snake will hurt no more than a wound made with any sharp instrument. The bite of a viper will cause immediate swelling. A cobra bite may have no local symptoms except for an intense burning pain in the area of the wound.

The appearance of the wound gives additional clues. Vipers do not really "bite". They stab with their fangs. The wound usually consists of two small punctures, generally half an inch or more apart. Sometimes there may be only one puncture if the snake partially misses or has one fang missing. Coral snakes, cobras, mambas and kraits often hang on and chew; the result may be one, two or more puncture marks. Harmless snakes usually have several teeth so that a bite may consist of several punctures formed in a semi-circle. However, it is not always easy to distinguish for certain between the bites of a harmless and a poisonous snake.

If you are bitten by a harmless snake, treat with iodine as an ordinary wound. If the bite is identified as that of a poisonous snake and you can get to a medical officer in a few minutes, apply a tourniquet and let the medical officer administer first aid. If no expert medical aid is available, undertake the following first aid measures immediately—*speed is essential*.

\* \* \*

*Place a tourniquet tightly above the bite.* Loosen the tourniquet every 15 minutes for one minute at a time.

\* \* \*

*Wipe the skin around the bite free of dripped venom.* Sterilize skin with antiseptic, such as tincture of iodine.

\* \* \*

*Sterilize a sharp knife or razor blade* by holding it in the flame of a match or wiping with iodine. Make an x-cut through each fang mark; in fleshy tissue, make each cut about  $\frac{1}{2}$  inch long and  $\frac{1}{4}$  inch deep; in thin tissue over bones make shallow cuts parallel to bone. Be careful not to cut large blood vessels, tendons or nerves.

\* \* \*

*Suck the venom out of the wound.* Use a snakebite pump, if available, or cup the mouth of a heated bottle over the wound. If no equipment is available, suck with the mouth through a rubber tissue laid over the bite or suck with the mouth directly on the bite—be sure to spit out the venom and rinse out the mouth periodically. The venom will do no harm unless there are sores in the mouth. Keep up the suction until the swelling ceases to progress.

\* \* \*

*If possible, kill the snake* and take it to the medical officer so that he can tell what kind of antivenin to use.

\* \* \*

*Give morphine to relieve pain.* Don't give alcohol under any circumstances.

\* \* \*

*Don't put anything into the wound.* Potassium permanganate or other chemicals do more harm than good.

\* \* \*

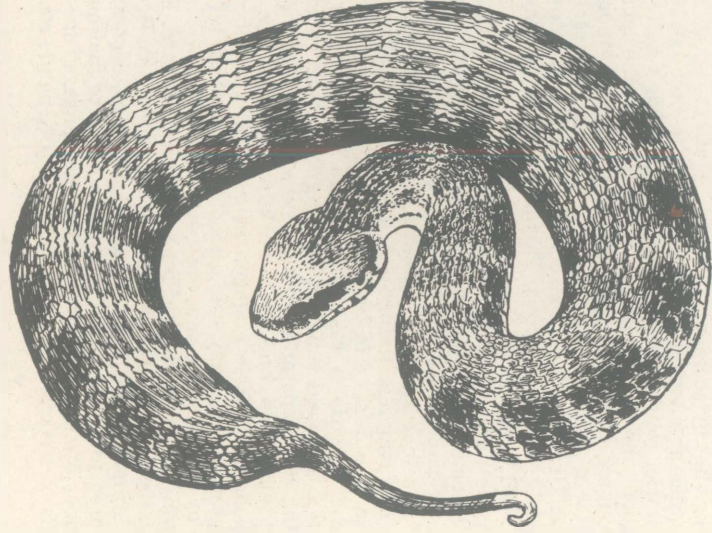
*Carry the victim to a medical officer.* Don't let him run or even walk.



# THE POISONOUS SNAKES OF AUSTRALIA, NEW GUINEA AND THE PACIFIC ISLANDS

## IDENTIFICATION AND HABITS

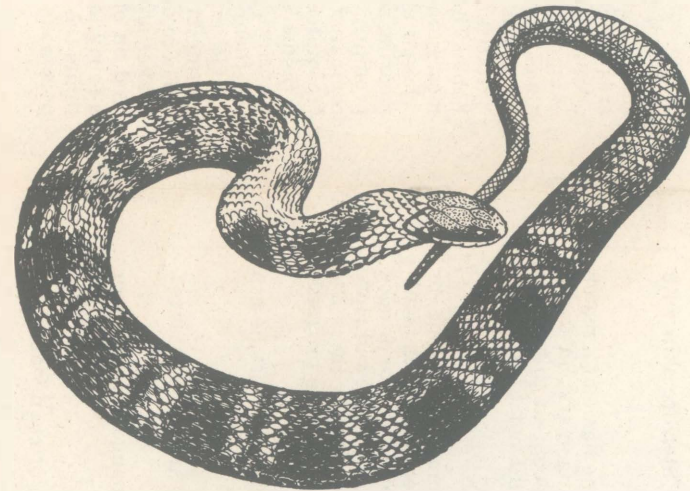
**All these snakes, except the sea snake, belong to the cobra family**



### DEATH ADDERS

**Description:** This snake has a short, thick, clumsy body with a head much wider than the neck, and a short thin tail. It seldom grows more than 2 feet long. It may be gray, brown, pink or brick-red, depending on the sandstone of the region in which it lives and into which its camouflage blends skilfully. There are bands of darker color across the body, particularly in the young snakes. The death adder has rough scales and has a spine on the tail.

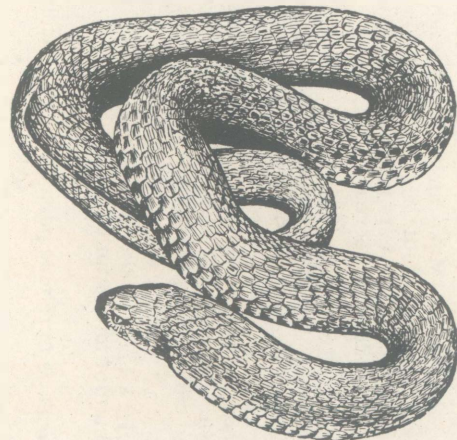
**Habits:** This snake is found in sandy localities over most of Australia except Victoria, and in southern New Guinea and the Moluccas. Because the death adder resembles the ground it lives on, it is likely to be stepped on. While the snake is not quick to strike, it can be dangerous if irritated or stepped on. The venom of this snake is highly poisonous.



### TIGER SNAKES

**Description:** The tiger snake has dark bands on a tawny background of green, gray, orange or brown; sometimes the bands are indistinct. It has a stout body with a rather wide head. It averages about 4 to 5 feet long when full-grown, but may reach 6 feet. The tiger snake spreads its neck when angry.

**Habits:** This snake lives in dry country, ranging extensively throughout Australia and Tasmania. It is a savage and dangerous reptile which causes more deaths in Australia than all the other snakes combined which are found there. Tiger snakes are quick to bite, spreading the neck and lunging with a flashing stroke that is so vigorous it may sometimes move the body forward, so that the snake seems to be making a short jump.



### COPPERHEADS

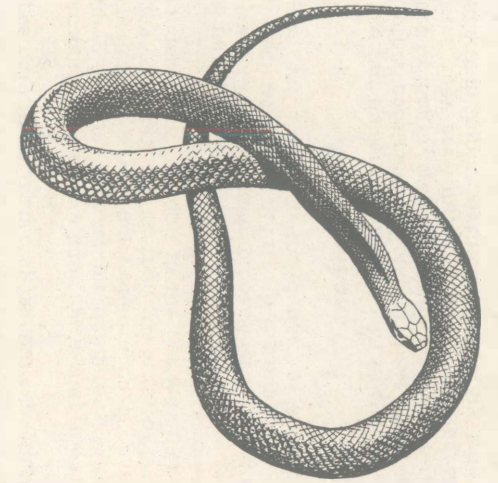
**Description:** This snake has a moderately thick body and may attain a length up to 6 feet. It usually has a reddish or dark-brown color but may be bright red or black; the head usually has a coppery tone, especially in the young. There are about two dozen other closely related species in Australia, but some of these are no more than 15 inches long and have weak venom.

**Habits:** The copperhead is found in the southerly portions of Australia. It frequents swamps and feeds on lizards and frogs. When angry, the snake rears its head a few inches from the ground, with the neck arched slightly, somewhat in the manner of a cobra. Normally, the copperhead is not aggressive unless irritated or stepped on.

### BROWN SNAKES

**Description:** This is a slender snake, with a small narrow head, which usually attains a length of 4 to 5 feet. The eyes are large. The color is light yellow to brown or gray above and white beneath; the young are pale brown and have a pretty ringed pattern. There are about a dozen relatives of this snake, some of which are called whip snakes. In spite of the small size of the head, the venom of this snake is highly poisonous.

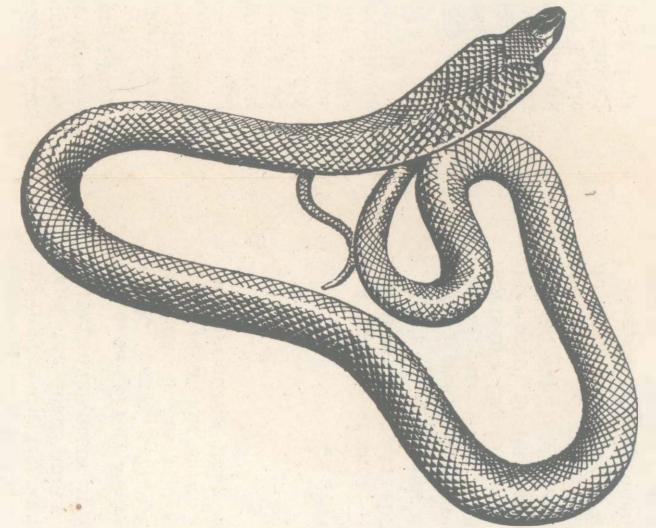
**Habits:** The brown snake is widely distributed all over Australia and is found also in New Guinea. It is not an aggressive snake unless it is disturbed. It strikes from a looped position.



### BLACK SNAKES

**Description:** The black snake is blue-black on top and brilliant scarlet underneath, edged with black. The scales are symmetrical and satiny-smooth. This snake averages 6 to 7 feet long, has a slender body and a small narrow head. It spreads the neck at the least feeling of alarm.

**Habits:** This snake occurs throughout Australia, except in the north and Tasmania. It prefers marshy places or streams; it dives and swims well and can stay under the water for long periods of time. Because it lies still on the bottoms of streams, it may be dangerous to bathers. The black snake will not attack unless stepped on or cornered. When angry it raises its head a few inches from the ground on a slanting plane and strikes from that position. While the black snake bites more people in Australia than any other snake, its venom is relatively weak and very few victims die of the bite.



### SEA SNAKES

**Description:** There are many species of sea snakes and they vary greatly in color and shape. They occur in salt water along the coasts throughout the Pacific. They have a tail which is flattened like an oar. The sea snakes can be distinguished from eels by the fact that the snakes have scales and the eels do not.

**Habits:** These snakes usually are found in salt or brackish water near the coast, but sometimes they may crawl up on land. Fishermen occasionally get a bite from a sea snake caught in a net and such a bite is dangerous. However, bites are rare. These snakes are not known to attack a man swimming. Even in those areas where they may be abundant there is no need to fear sea snakes

